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REMARKS/ARGUMENTSAmendments to the specification

The specification has been amended to update the Summary of the Invention on pages 2 and 3 to reflect changes in the claims, notably the addition of the content of claims 2 and 31, now cancelled to claims 1 and 21. Further, the specification has been amended on page 5, as set out above, to specify that the term Ethernet™, as is well known in the art, designates equipment, links, and communications that adhere to the IEEE 802.3 standard, for which the term Ethernet™ is used as a synonym. As the equivalence between Ethernet™ and IEEE 802.3 is well known in the art and the other changes to the description refer to elements of the application as originally filed, no new subject matter has been added to specification.

Amendments to the claims

Independent claim 1 has been amended to specify that the first and second network ports are connected by an IEEE 802.3 (Ethernet) digital link, using Internet Protocol (IP), so as to enable audio and video transmission therebetween. Claim 12 has been amended to specify that the speed of the digital link is at least 1 Mbps. Support for these amendments may be found in the application as originally filed on page 5, lines 5-30, claim 12 as originally filed, and other locations. Claim 21 has been amended to specify that the RS-485 link specified in claim 31, now cancelled, provides high speed communication for audio and video signals using an Internet Protocol based protocol. Claims 9 and 27 have been amended to specify that the type of network hub specified therein is IEEE 802.3 (compatible) hub. Claims 3 and 32 have been amended to update dependencies due to the cancellation of claims 2 and 31. The equivalence between Ethernet and IEEE 802.3 is well known in the art. Further,

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support for these amendments may be found in the application as originally filed on page 5, lines 5-30, claim 12 as originally filed, and other locations. New claims 34 and 35 have been added to specify, respectively, that a software program controls the RS-585 link and networks and that a software program monitors the health of the networks. Support for new claims 34 and 35 are found on page 8, line 30, to page 9, line 20 of the application as originally filed. New claim 36, support for which may be found on lines 10-15 of page 7 of the application as filed, specifies that a laptop computer is connectable to the hub for configuring the networks. No new subject matter has been added from the application as originally filed.

Claim rejections under 35 USC 112

The Examiner has rejected claims 9-20 and 27-33 under 35 USC 112, second paragraph, due to the use of the term Ethernet™ in claims 9, 12, and 27. In response, the Applicant has replaced references to Ethernet™ in the claims with references specifying that the equipment and connections mentioned therein are IEEE 802.3 equipment or connections. Accordingly, the claims in question specify limitations based on a trademark and the equipment and products mentioned therein are clearly identified as adhering to the well-known IEEE 802.3 standard. Accordingly, it is respectfully submitted that this rejection should be withdrawn.

Claim rejections under 35 USC 102

The Examiner has rejected claims 1 to 6 under 35 USC 102(e) as being anticipated by Ellington (US Publication Number 2001/0009021). In response, the Applicant has cancelled claim 2 and amended claim 1 to specify that the first and second network ports are digitally connected to one another via an

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IEEE 802.3 digital link and using Internet Protocol so as to enable high speed audio and video signal communication therebetween. (Emphasis added)

**Re Claim 1:** In the view of the Examiner, Ellington teaches a communication circuit for use within a vehicle having a first network port (identified by the Examiner as a networked device such as a laptop connected to a vehicle LAN) and a second network port remote therefrom (identified by the Examiner, for example, as devices on a terrestrial network). More specifically, Ellington teaches a system and method for providing electrical power to devices (i.e. laptops) connected to ports on the vehicle network. However, nowhere does Ellington teach that the link between the ports is capable of high speed audio and video communication, as now specified in amended claim 1. In fact, the RJ-45 connections taught by Ellington for the ports by which the devices are connected to the vehicle network are widely known, at least with regard to the filing date of the application, as being incapable of supporting sufficient bandwidth to enable high speed audio and video communication thereupon. Accordingly, Ellington does not teach all of the limitations of the invention as claimed in amended claim 1. It therefore respectfully submitted that claim 1 is now allowable and that this rejection should be withdrawn. (Emphasis added)

**Re Claims 2-6:** Claim 2 has now been cancelled. Claims 3-6 are dependent on amended claim 1 and contain all of the limitations thereof. It is therefore respectfully submitted that Ellington does not teach all of the elements of these claims, and that the rejections should be withdrawn, for the same reasons as set out above for claim 1.

Claim rejections under 35 USC 103

The Examiner has rejected claims 7-33 under 35 USC 103(a) as being unpatentable over Ellington as applied by the Examiner to claim 6, in further view

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of Sullivan ("The IEEE 1473-L Communications Protocol: Experience in Rail Transit", APTA Paper, June 2002). In response, the Applicant has amended claim 1, as described above with regard to the rejection under 35 USC 102. Further, the Applicant has amended claim 21 to specify that that the first interface and the second interface are digitally connected to one another by a RS-485 digital link and using a Local Area Network Internet Protocol-based protocol so as to enable high speed audio and video signal communication between the first and the second Local Area Networks. (Emphasis added)

**Re Claims 1, 7, and 21:** As already described in end of page 1 and beginning of page 2 of the application as originally filed, Sullivan provides for a communication network that is not capable of handling high speed audio and video and real time multimedia communications within and between train cars. Ellington, as explained above, also does not teach such high speed capability for the invention described thereby. Thus, Sullivan and Ellington, either alone or in combination, do not teach communication circuits for vehicles having ports or interfaces capable connected by digital links that are capable of high-speed communication, using an Internet Protocol-based protocol, for audio and video transmission. Accordingly, Sullivan and Ellington do not teach, either alone or in combination, all of the limitations specified in claim 7, dependent on amended claim 1, or amended independent claim 21. Therefore, it is respectfully submitted that these claims are now allowable and that the rejections should be withdrawn. (Emphasis added).

**Re Claims 8-20, 22-35:** Claim 31 has been cancelled. Claims 8-20 are dependent on claim 7, itself dependent on claim 1, and claims 22-33 are dependent on claim 21. Thus, claims 8-20 contain all of the limitations of claim 7 and 1 (now amended), and claims 22-30 and 32-35 contain all of the limitations of amended claim 21. Accordingly, as Ellington and Sullivan do not teach, alone or in combination, all of the elements of claims 1, 7, and 21, Ellington and

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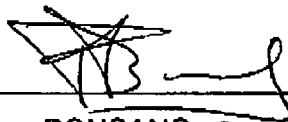
Sullivan also do not teach all of the elements of claims 8-20, 22-30, and 32-33. Accordingly, it is respectfully submitted that the rejections to these claims should be withdrawn for the same reasons for claims 7 and 21, set out above. New claims 34-36 also depend on claim 21 and should be allowable for the same reasons as claim 21.

Since three claims have been added and only two claims were cancelled, please find enclosed an amount of 25.00 USD in payment of one additional claim, the Applicant/ Assignee claiming small entity status under 37 CFR 1.27.

In view of the foregoing, it is submitted that the Application is now in condition for allowance. Accordingly, allowance of the Application in due course is respectfully solicited.

Respectfully submitted,

ENVITECH AUTOMATION INC, Assignee



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Encl.: Petition for 1-month Extension of Time - 1 page  
Fee payment form (Extension of time and one additional claim) - 1 page

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